Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

In the Matter of)
)
Inquiry Regarding Carrier)
Current Systems, including) ET Docket No. 03-10
Broadband Over Powerline Systems)
)

To: The Commission

REPLY COMMENTS OF KRIS I. MRAZ

These are Reply Comments of Kris I. Mraz to Comments of the United Power Line Council in the matter above, dated 7 July 2003.

- 1. Comment: "The UPLC is pleased to respond that there has been no interference reported in any of the field trials by its members". \P III.B.
- 2. Reply: This statement is quite disingenuous and self-serving on the part of UPLC. Its members are not likely to report interference as they are trying to sell the concept, not find ways to make it more expensive to implement.
- 3. Comment: "The experience gained from this process indicates that BPL systems comply with the Part 15 limits, and that the existing rules protect licensed users against interference from BPL systems". ¶III.B.
- 4. Reply: On the contrary. The UPLC has not proved anything. As Part 15 clearly states: "Operation of an intentional, unintentional, or incidental radiator is subject to the conditions that no harmful interference is caused. . . "1, and "The operator of a radio frequency device shall be required to cease operating the device upon notification by a Commission representative that the device is causing harmful interference" UPLC has not provided any evidence that BPL systems can be deployed without causing interference to authorized services. Protection implies a means to correct interference. UPLC has not provided any testimony as to what techniques its members will use to mitigate interference to authorized services.

As testimony to the affect that BPL will have on MF and HF communications the Commission need only look to the wireless cable modem fiasco where the manufacturers designed the unit to use frequencies in the range of 3500-3600 Khz on house wiring³. Propagated interference blocked all communications on these frequencies at least 1/2 mile away. This required FCC involvement and massive recall/replacement of deployed wireless cable modems. To this day interference is still present due to the inability of the cable companies to locate all deployed wireless cable modems. The UPLC must provide, as a minimum, concrete plans to protect authorized services from interference including tracking complaints from agencies/individuals, maintaining a database of the location of all deployed BPL devices, field strength measurements at affected locations, and redesign/removal of deployed BPL devices.

¹ See 47 C.F.R. §§ 15.5(b)

² See 47 C.F.R. §§ 15.5(c)

³ See www.arrl.org/tis/info/rfiteljx.html

- 5. Comment: "If anything, the existing rules may be too stringent and unnecessarily limit the range of BPL, but certainly the emission limits do not need to be reduced to prevent interference". ¶III.B.
- 6. Reply: The UPLC provided no evidence to support this statement and should be considered conjecture. On the other hand, the American Radio Relay League provides solid evidence supporting its conclusion that Part 15 limits should be reduced. "The attached technical studies and the foregoing argument demonstrate that (1) BPL at HF and low VHF is incompatible with incumbent Amateur operation, and (2) that the existing radiated emission levels permitted by Part 15 are too high, and would permit widespread interference to Amateur HF and VHF stations¹".
- 7. Comment: "Some trials of Access BPL systems do in fact use devices designed for In-House BPL use, and any unintended migration of the signal would be so faint that there would be no potential for interference". ¶III.B.
- 8. Reply: Again, this is conjecture not supported by the facts and should be disregarded by the Commission.
- 9 Comment: "The UPLC believes that the existing Part 15 rules for low speed carrier current systems do adequately protect authorized users of the spectrum that are in the bands used by BPL systems". ¶III.B.
- 10. Reply: I refer the Commission again to the wireless cable modem problems and ensuing time and effort by the FCC to clean up these interference cases (paragraph 4 above). This is evidence that, in some cases, Part 15 rules do NOT protect authorized users.

In closing let me quote FCC Chairman Michael K. Powell from a recent Washington Post article. ". . . it is one of my top priorities . . . to ensure that public safety has the reliable spectrum resources it needs to do its lifesaving work²". I urge the Commission to protect amateur radio now and avoid a massive and expensive cleanup later.

Respectfully Submitted

Kris I. Mraz 470 Kinney Dr Murphy, TX 75094

18 August, 2003

 $^{^{1}}$ See COMMENTS OF ARRL, THE NATIONAL ASSOCIATION FOR AMATEUR RADIO, \P II.21.

² FCC Vows To Fix Interference, August 18, 2003, www.washingtonpost.com/ac2/wp-dyn/A7270-2003Aug17